Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Short-stay nursing home care: percent of residents who did not receive, due to medical contraindication, the pneumococcal vaccine.

Source(s)

RTI International. MDS 3.0 quality measures user's manual, v9.0. Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2015 Oct 1. 80 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percent of short-stay residents who did not receive, due to medical contraindication, the pneumococcal vaccine during the 12-month reporting period.

Rationale

According to the Centers for Disease Control and Prevention (CDC) (2009), pneumococcal disease kills more people in the United States each year than all other vaccine-preventable diseases combined. In 2006, all possible pneumonia diagnoses (including viral, bacterial and unspecified organisms) killed 55,477 people in the United States (Hall, Levant, & DeFrances, 2012) and was responsible for approximately 589,000 hospital discharges in males and 643,000 hospital discharges in females (DeFrances et al., 2008). Among the 2006 discharges, individuals age 65 or older had the highest rate at 189 per 10,000 (DeFrances et al., 2008). For patients in long-term care facilities, pneumonia is the leading cause of morbidity and mortality and is the leading cause of transfer to acute-care hospitals

(Furman, Rayner, & Tobin, 2004). Older people and those with chronic health conditions are at high risk for pneumococcal disease. Pneumonia is of even greater concern for post-surgery patients: CDC reports that pneumonia is the third-most-frequent healthcare-acquired infection (HAI) among post-surgical patients, with a prevalence of 15%; and among cases in which the cause of death was an HAI, pneumonia is the most frequent HAI (38%) (CDC, 2009). Given that many patients in post-acute care (PAC) settings are post-surgery, vaccinations of post-acute care residents can prevent or lower the risk of residents becoming seriously ill. Stroke patients are also at higher risk of pneumonia as a complication; pneumonia is one of the most common adverse events and the second most common cause of acute-hospital readmission (Hung et al., 2005).

The pneumococcal vaccine protects against the bacterial strain of pneumonia caused by *Streptococcus pneumoniae* (*S. pneumoniae*). Specific data related to *S. pneumoniae* in nursing facilities, long-term care hospitals (LTCHs) and inpatient rehabilitation facilities (IRFs) is currently unknown. Generally speaking, *S. pneumoniae* accounted for 5,000 deaths among persons of all ages in 2009 (CDC, 2010). The estimated overall annual incidence of *S. pneumoniae* in the United States is 15 to 30 cases per 100,000 population, with the rate being higher in persons aged 65 or older (about 50 to 83 cases per 100,000 population) (CDC, 1997). The use of the PPSV23 vaccine among adults aged 65 or older and those adults aged 19 to 64 years with underlying medical conditions is recommended, as they are at greater risk for serious pneumococcal infection (CDC, 2010).

Hospitalization rates for pneumonia-related stays for the elderly population have been increasing over the past 15 years; among those 85 or older, at least 1 in 20 people were hospitalized each year because of pneumonia (Fry et al., 2005). In 2005, Medicare paid an average of $6,342 per hospital discharge for pneumonia-related short-stay hospitalizations; the average length of stay was 6.1 days. The number of Medicare-reimbursed discharges related to pneumococcal infection for the same year was 670,000 (Health Care Financing Review, 2007).

Healthy People 2010 (Objective 14-29f) and Healthy People 2020 (Objective IID-13.3) set a goal of 90% of adults vaccinated against pneumococcal disease in long-term care facilities and nursing homes by 2010 and 2020, respectively (Office of Disease Prevention and Health Promotion [ODPHP], 2000; ODPHP, 2011). However, estimated pneumococcal vaccination coverage remains below 50% among high-risk groups (National Health Interview Survey [NHIS], 2006). In 2006, 66 percent of persons in long-term care facilities and nursing homes certified by the Centers for Medicare and Medicaid Services (CMS) reported having up-to-date pneumococcal vaccinations (ODPHP, 2011). CMS currently uses MDS 2.0 data to publicly report a pneumococcal vaccination quality measure (QM) for nursing facility residents. In an analysis of quality measures using MDS data from the 2006 Quarter 1 for a random 10% facility sample, the University of Colorado found that this measure had a significant amount of variability across facilities. The quality measure varied from 15.6% at the 10th percentile to 98.1% at the 90th percentile. In addition, 8.0% of facilities had 100% vaccination (Brega et al., 2008). The first quarter (Q1) 2007 statewide averages for the PAC population ranged from 48.8% to 91.8%, with a 73.7% national average (Colorado Foundation for Medical Care, 2007).

This measure is intended to encourage nursing homes, LTCHs, and IRFs to focus on this important aspect of clinical care by assessing residents/patients on the status of their pneumococcal vaccine immunization and to provide immunization as deemed clinically appropriate.

Evidence for Rationale

Brega A, Goodrich G, Nuccio E, Hittle D. Transition of publicly reported nursing home quality measures to MDS 3.0-draft. Denver (CO): Division of Health Care Policy and Research University of Colorado at Denver; 2008.

Centers for Disease Control and Prevention (CDC), Advisory Committee on Immunization Practices. Updated recommendations for prevention of invasive pneumococcal disease among adults using the 23-valent pneumococcal polysaccharide vaccine (PPSV23). MMWR Morb Mortal Wkly Rep. 2010 Sep

3;59(34):1102-6. PubMed

Centers for Disease Control and Prevention (CDC). Pneumococcal polysaccharide vaccine: What you need to know. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2009 Mar.

Centers for Disease Control and Prevention. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep. 1997 Apr 4;46(RR-8):1-24. [123 references] PubMed

Colorado Foundation for Medical Care. Environmental scan: review of the literature, clinical guidelines, and other sources of information pertinent to the CMS publicly reported nursing home quality measures. Englewood (CO): Colorado Foundation for Medical Care; 2007.

DeFrances CJ, Lucas CA, Buie VC, Golosinskiy A. 2006 National Hospital Discharge Survey. Natl Health Stat Report. 2008 Jul 30;(5):1-20. PubMed

Fry AM, Shay DK, Holman RC, Curns AT, Anderson LJ. Trends in hospitalizations for pneumonia among persons aged 65 years or older in the United States, 1988-2002. JAMA. 2005 Dec 7;294(21):2712-9. PubMed

Furman CD, Rayner AV, Tobin EP. Pneumonia in older residents of long-term care facilities. Am Fam Physician. 2004 Oct 15;70(8):1495-500. PubMed

Hall MJ, Levant S, DeFrances CJ. Hospitalization for stroke in U.S. hospitals, 1989-2009. NCHS Data Brief. 2012 May;(95):1-8. PubMed

Health Care Financing Review. Statistical supplement 293. Baltimore (MD): Centers for Medicare and Medicaid Services; 2007.

Hung JW, Tsay TH, Chang HW, Leong CP, Lau YC. Incidence and risk factors of medical complications during inpatient stroke rehabilitation. Chang Gung Med J. 2005 Jan;28(1):31-8. PubMed

National Health Interview Survey. Pneumococcal: self-reported pneumococcal vaccination coverage trends 1989-2006. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2006.

National Quality Forum measure information: percent of residents or patients assessed and appropriately given the pneumococcal vaccine (short stay). Washington (DC): National Quality Forum (NQF); 2016 Jan 16. 17 p.

Office of Disease Prevention and Health Promotion (ODPHP). Healthy people 2010. [internet]. Washington (DC): U.S. Department of Health and Human Services (HHS); 2000.

Office of Disease Prevention and Health Promotion (ODPHP). Immunization and infectious diseases. [internet]. Washington (DC): U.S. Department of Health and Human Services (HHS); 2011 Jun.

Primary Health Components

Nursing home; short-stay; pneumococcal vaccine

Denominator Description

All short-stay residents with a selected target assessment (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Residents meeting the following criteria on the selected target assessment:

> Were ineligible due to medical contraindication(s) (e.g., anaphylactic hypersensitivity to components of the vaccine; bone marrow transplant within the past 12 months; *or* receiving a course of chemotherapy within the past two weeks).

See the related "Numerator Inclusions/Exclusions" field.

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

- In 2004, the seventh-most common cause of death for persons age 65 or older in the United States was pneumonia and influenza (Gorina et al., 2008). Influenza and pneumonia continue to be a leading cause of death, and they were reported by the Centers for Medicare and Medicaid Services (CMS) in 2011 to be the fifth-leading cause of death among individuals age 65 or older. Additionally, pneumonia is among the top 20 most common Medicare Severity Long term Care Diagnosis Related Groups (MS-LTC-DRG) ("Long-term care," 2011). Death related to pneumonia affects the elderly at a higher rate, especially for persons aged 85 or older (Thompson et al., 2003; Centers for Disease Control and Prevention [CDC], 2011). Almost 60,000 deaths in 2004 were caused by influenza and pneumonia, and more than 85% of those were among the elderly (Gorina et al., 2008). CMS reports that there are currently more than 40,000 cases of invasive pneumococcal disease in the United States and approximately one third of these are in individuals age 65 or older (CMS, 2011). Also, over half of the more than 5,000 annual deaths from invasive pneumococcal diseases occurred in individuals age 65 or older (CMS, 2011). Frail elderly are especially at risk for contracting pneumonia as a complication of another infection or medical condition, particularly stroke or previous or recent surgery or a condition requiring surgery or a ventilator—all of which are conditions for which patients may spend some of their recovery time in an IRF or LTCH (Hung et al., 2005; CDC, 2011; Fagon et al., 1993). In 2004, there were approximately 123,000 deaths with influenza and pneumonia mentioned on the death certificate as a secondary cause of death (Gorina et al., 2008).
- As the evidence suggests, immunization of post-acute care residents or patients against pneumococcal infections is an important mechanism for reducing serious illness and mortality in all at-risk patients, regardless of setting. In addition to protecting vaccinated individuals, research suggests that vaccination programs using the pneumococcal conjugate vaccine can contribute to development of a herd immunity amongst the elderly, protecting even those who cannot get vaccinated. According to the 2010 update to the Advisory Committee on Immunization Practices (ACIP) recommendations for prevention of invasive pneumococcal disease, pneumococcal vaccinations have reduced pneumococcal infection among unvaccinated persons, including those aged

greater than 65. In 2000 the CDC introduced the infant-7 valent pneumococcal vaccine immunization program. By 2007 the overall incidence rate of invasive pneumococcal disease among person ages 65 and older had decreased by 37% (CDC, 2010). Additional indirect effects are expected to occur when the PCV13 immunization (given to youths age less than 18) program, initiated in 2010, is fully implemented, although the magnitude of these effects is difficult to predict (CDC, 2010). It is important to note that herd immunity is only relevant in the context of the pneumococcal conjugate vaccine.

- A study of the implementation of a pneumococcal vaccination standing order on an inpatient hospital serving geriatric patients found that after implementing the order, the vaccination rate increased from 0% to 15.4%, and vaccination opportunity rate increased from 8% to 59.1% (Eckrode, Church, & English, 2007). This indicates that there is a wide range of performance among facilities that are measuring vaccination rates and those that are not.
  In an analysis of quality measures using Minimum Data Set (MDS) 2.0 data from 2006 Quarter 1 (Q1) for a random 10% facility sample, the University of Colorado found that this measure had a significant amount of variability across facilities. The quality measure varied from 15.6% at the 10th percentile to 98.1% at the 90th percentile. In addition, 8.0% of facilities had 100% vaccination (Brega et al., 2008).

- A study that examined racial disparities in receipt and documentation of pneumococcal vaccinations among nursing home residents concluded that racial disparities exist in vaccination coverage among U.S. nursing home residents (Li & Mukamel, 2010). The incidence of pneumococcal infection in black adults is three to five times as high as that of white adults (Smith et al., 2007), but pneumococcal vaccination rates are lower for black nursing home residents than for white residents—31% of black residents compared with 24% of white residents age 65 years or older had never received pneumococcal vaccination. Blacks also had a higher likelihood of unknown vaccination status than whites in Medicaid-only nursing facilities and lower odds of unknown vaccination status in government-owned nursing facilities. The racial difference in pneumococcal vaccination exists predominantly in certain nursing facility types (Marsteller et al., 2008).
  Within nursing homes specifically, racial segregation between facilities has been shown to be a major factor in racial disparities in this population, primarily for African Americans. In 2000, a study drawing on national MDS and Online Survey, Certification, and Reporting (OSCAR) data found that two-thirds of all black residents were living in just 10% of all facilities (Smith et al., 2007). A 2002 survey of a stratified sample of 39 nursing homes and 181 residential care/assisted living facilities in four states had similar findings (Howard et al., 2002). Facilities serving African Americans have demonstrated a lower level of quality care than those serving whites, with lower staff-to-resident ratios and higher deficiency ratings (Grabowski, 2004). Minority groups in general, and African Americans in particular, also have more limited access to nursing home care than whites (National Center for Health Statistics [NCHS], CDC, 1997; Marsteller et al., 2008).

Evidence for Additional Information Supporting Need for the Measure

Brega A, Goodrich G, Nuccio E, Hittle D. Transition of publicly reported nursing home quality measures to MDS 3.0-draft. Denver (CO): Division of Health Care Policy and Research University of Colorado at Denver; 2008.

Centers for Disease Control and Prevention (CDC), Advisory Committee on Immunization Practices. Updated recommendations for prevention of invasive pneumococcal disease among adults using the 23-valent pneumococcal polysaccharide vaccine (PPSV23). MMWR Morb Mortal Wkly Rep. 2010 Sep 3;59(34):1102-6. PubMed

Centers for Disease Control and Prevention (CDC). Pneumococcal vaccination: who needs it?. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2011 Apr.

Centers for Medicare and Medicaid Services (CMS). Immunizations. [internet]. Baltimore (MD): Centers for Medicare and Medicaid Services (CMS); 2011 May [updated 2014 Dec 15];

Eckrode C, Church N, English WJ. Implementation and evaluation of a nursing assessment/standing orders-based inpatient pneumococcal vaccination program. Am J Infect Control. 2007 Oct;35(8):508-15. PubMed

Fagon JY, Chastre J, Hance AJ, Montravers P, Novara A, Gibert C. Nosocomial pneumonia in ventilated patients: a cohort study evaluating attributable mortality and hospital stay. Am J Med. 1993 Mar;94(3):281-8. PubMed

Gorina Y, Kelly T, Lubitz J, Hines Z. Trends in influenza and pneumonia among older persons in the United States. Hyattsville (MD): Centers for Disease Control and Prevention (CDC), National Center for Health Statistics; 2008.

Grabowski DC. The admission of blacks to high-deficiency nursing homes. Med Care. 2004 May;42(5):456-64. PubMed

Howard DL, Sloane PD, Zimmerman S, Eckert JK, Walsh JF, Buie VC, Taylor PJ, Koch GG. Distribution of African Americans in residential care/assisted living and nursing homes: more evidence of racial disparity. Am J Public Health. 2002 Aug;92(8):1272-7. PubMed

Hung JW, Tsay TH, Chang HW, Leong CP, Lau YC. Incidence and risk factors of medical complications during inpatient stroke rehabilitation. Chang Gung Med J. 2005 Jan;28(1):31-8. PubMed

Li Y, Mukamel DB. Racial disparities in receipt of influenza and pneumococcus vaccinations among US nursing-home residents. Am J Public Health. 2010 Apr 1;100 Suppl 1:S256-62. PubMed

Long-term care hospital services. In: Medicare Payment Advisory Commission (MedPAC). Report to the Congress: Medicare payment policy. Washington (DC): Medicare Payment Advisory Commission (MedPAC); 2011 Mar. p. 231-56.

Marsteller JA, Tiggle RB, Remsburg RE, Bardenheier B, Shefer A, Han B. Pneumococcal vaccination in nursing homes: does race make a difference. J Am Med Dir Assoc. 2008 Nov;9(9):641-7. PubMed

National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC). Health, United States 1996-97 and injury chartbook. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 1997. 341 p.

National Center for Immunization and Respiratory Diseases (NCIRD). Pneumococcal diseases. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2011. 279-96 p.

National Quality Forum measure information: percent of residents or patients assessed and appropriately given the pneumococcal vaccine (short stay). Washington (DC): National Quality Forum (NQF); 2016 Jan 16. 17 p.

Post-procedure pneumonia (PPP) event. In: National Center for Preparedness, Detection and Control of Infectious Diseases (NCPDCID). The National Healthcare Safety Network (NHSN) manual. Atlanta (GA): Centers for Disease Control and Prevention (CDC); 2011 Jun.

Smith DB, Feng Z, Fennell ML, Zinn JS, Mor V. Separate and unequal: racial segregation and disparities in quality across U.S. nursing homes. Health Aff (Millwood). 2007 Sep-Oct;26(5):1448-58. PubMed

Thompson WW, Shay DK, Weintraub E, Brammer L, Cox N, Anderson LJ, Fukuda K. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA. 2003 Jan 8;289(2):179-86. PubMed

Extent of Measure Testing

A joint RAND/Harvard team engaged in a deliberate iterative process to incorporate provider and consumer input, expert consultation, scientific advances in clinical knowledge about screening and assessment, Centers for Medicare & Medicaid Services (CMS) experience, and intensive item development and testing by a national Veteran's Health Administration (VHA) consortium. This process allowed the final national testing of Minimum Data Set (MDS) 3.0 to include well-developed and tested items.

The national validation and evaluation of the MDS 3.0 included 71 community nursing homes (NHs) (3,822 residents) and 19 VHA NHs (764 residents), regionally distributed throughout the United States. The evaluation was designed to test and analyze inter-rater agreement (reliability) between gold-standard (research) nurses and between facility and gold-standard nurses, validity of key sections, response rates for interview items, anonymous feedback on changes from participating nurses, and time to complete the MDS assessment.

Analysis of the test results showed that MDS 3.0 items had either excellent or very good reliability even when comparing research nurse to facility-nurse assessment. In most instances these were higher than those seen in the past with MDS 2.0. In addition, for the cognitive, mood and behavior items, national testing included collection of independent criterion or gold-standard measures. These MDS 3.0 sections were more highly matched to criterion measures than were MDS 2.0 items.

Improvements incorporated in MDS 3.0 produced a more efficient assessment: better quality information was obtained in less time. Such gains should improve identification of resident needs and enhance resident-focused care planning. In addition, including items recognized in other care settings is likely to enhance communication among providers. These significant gains reflect the cumulative effect of changes across the tool, including use of more valid items, direct inclusion of resident reports, improved clarity of retained items, deletion of poorly performing items, form redesign, and briefer assessment periods for clinical items.

Refer to *Development & Validation of a Revised Nursing Home Assessment Tool: MDS 3.0.* for additional information.

Evidence for Extent of Measure Testing

Saliba D, Buchanan J. Development & validation of a revised nursing home assessment tool: MDS 3.0. Baltimore (MD): Quality Measurement and Health Assessment Group, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services; 2008 Apr. 263 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Hospital Inpatient

Long-term Care Facilities - Other

Skilled Nursing Facilities/Nursing Homes

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Specified

Target Population Age

Age greater than or equal to 5 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities
Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

12-month reporting period

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Diagnostic Evaluation

Institutionalization

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
All short-stay* residents with a selected target assessment

*Short-stay: An episode with cumulative days in facility (CDIF) less than or equal to 100 days as of the end of the target period.

Exclusions
Resident's age on target date of selected target assessment is less than 5 years (i.e., resident has not yet reached 5th birthday on target date).

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
Residents meeting the following criteria on the selected target assessment:

> Were ineligible due to medical contraindication(s) (e.g., anaphylactic hypersensitivity to components of the vaccine; bone marrow transplant within the past 12 months; *or* receiving a course of chemotherapy within the past two weeks).

Note: Refer to the original measure documentation for details.

Exclusions
Unspecified

Numerator Search Strategy

Institutionalization

Data Source

Administrative clinical data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

- Center for Medicare & Medicaid Services (CMS) Minimum Data Set (MDS) - Resident Assessment Instrument (Version 3.0)
- Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) Version 1.2 for Inpatient
- Long-Term Care Hospital (LTCH) Continuity Assessment Record & Evaluation (CARE) Data Set Version 2.01

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Percent of residents who did not receive, due to medical contraindication, the pneumococcal vaccine (short-stay).

Measure Collection Name

Nursing Home Quality Initiative Measures

Measure Set Name

Short-stay Quality Measures

Submitter

Centers for Medicare & Medicaid Services - Federal Government Agency [U.S.]

Developer

Centers for Medicare & Medicaid Services - Federal Government Agency [U.S.]

RTI International - Nonprofit Research Organization

Funding Source(s)

United States (U.S.) Government

Composition of the Group that Developed the Measure

United States (U.S.) Government Staff, Clinical Experts, Researchers, and Statisticians

Financial Disclosures/Other Potential Conflicts of Interest

No conflicts of interest exist.

Adaptation

This measure was adapted from the following source:

> Influenza vaccination for all nursing home residents and pneumococcal vaccination of residents age 65 or older (Centers for Disease Control and Prevention [CDC])

Date of Most Current Version in NQMC

2015 Oct

Measure Maintenance

Annual and endorsement

Date of Next Anticipated Revision

Quarter 2 2016

Measure Status

This is the current release of the measure.

This measure updates a previous version: RTI International. MDS 3.0 quality measures user's manual. v8.0. Baltimore (MD): Center for Medicare & Medicaid Services (CMS); 2013 Apr 15. 80 p.

Measure Availability

Source available from the Centers for Medicare & Medicaid Services (CMS) Web site .

For more information, refer to the CMS Web site at www.cms.gov .

Companion Documents

The following is available:

Saliba D, Buchanan J. Development & validation of a revised nursing home assessment tool: MDS 3.0. Baltimore (MD): Quality Measurement and Health Assessment Group, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services; 2008 Apr. 263 p. Available from the Centers for Medicare & Medicaid Services (CMS) Web site .

NQMC Status

This NQMC summary was completed by ECRI Institute on August 15, 2013. The information was verified by the measure developer on December 3, 2013.

This NQMC summary was updated by ECRI Institute on May 31, 2016. The information was not verified by the measure developer.

Copyright Statement

Production

Source(s)

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